APPENDIX G

Chevron Time of Rupture Information & Results of Pipeline Model

West Cote Blanche Bay
MAR07MM001

Chevron

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March 21, 2007

Mr. Rod Dyck
National Transportation Safety Board
490 L'Enfant Plaza East
Washington, D.C. 20594

Gas Volume Calculation and Pipeline Blowdown Analysis for the West Cote Blanche Bay Fire and Explosion of October 12, 2006
Offshore, Louisiana

Dear Mr. Dyck

Attached please find:

1) A one page document showing the estimated volume of gas released during the blowdown of the West Cote Blanche Bay 8" gas sales pipeline. The calculation is based on the determination of the natural gas volume in the pipeline plus the additional gas Vermilion Bay produced for 13 minutes (0.22 hours) into the pipeline system before ceasing production.
2) A one page document commenting on the results of the West Cote Blanche Bay pipeline blowdown model performed by a flow assurance professional with Chevron's Energy Technology Company.

If there are questions about any of these documents, please call me at [redacted].

Sincerely,

[redacted]

Kerry Mire

Date	12/11/2006
Title	Ivanhoe P/L system depressure calculations for WCBB Rupture incident

Pipeline Data

OD (in)	8.625
Schedule	40
ID (in)	8.125
Operating Pressure (psig)	700

Pipeline Segment Volume Calculations

Segment Description	Length (ft)	P/L Volume at atm. Press (ACF)	P/L Volume at Operating Press. (MSCF)	
VR Bay to Bay Junction	32,300	11,624	565	
West Cote to Bay Junction	19,650	7,072	344	
Bay Junction to Marsh Junction*	31,000	11,156	542	Check Valve prevented depressure
Swift to Marsh Junction*	9,000	3,239	157	Check Valve prevented depressure
Marsh Junction to Col. Gulf*	8,000	2,879	140	Check Valve prevented depressure
Subtotal Volume for Incident	**51,950**	**18,696**	**909**	

*** Note: Segments not de-pressured due to check valve and not included in total volume.**

Depressurization Calculation

Flow Input	Rate (MSCFD)	Time (Hours)	Volume (MSCF)
VR Bay Sales Volume**	7,000	0.22	64

** Note: VR bay flowed untill the line pressure reached 400psig (approx. 0.22 hours)

Tota. Calculated Volume Released (Segment Volume + Rate)	973	MSCI

West Cote Blanche Bay 8" Gas Sales Blowdown Transient OLGA Model Results

Comments by Sivakumar Subramanian (employee of Chevron Energy Technology Company). October 18, 2006

The results are in on the transient OLGA modeling of the pipeline rupture. I have looked at what the consultant did and compared with some of my own simulations. The simulation matches the pressure decline curve observed at VR bay quite well. I would say the match is as good as we can expect from a model with the limited field data at hand.

In the model the pressure starts dropping a minute or so after the actual rupture event. This is also consistent with what I would expect from the fact that the pressure pulse will travel at roughly the speed of sound. Given the rupture is roughly 45,000 ft away from VR bay platform and sound travels at about 1000 ft per second, we should see impact of the rupture in a minute or so.

Based on the match between the model and observed pressure decline curves, I would say the actual event did happen close to 11:55 AM which essentially confirms the timeline that you were thinking of.